

Application S/N 10/722,804
Amendment dated: January 8, 2007
Response to Office Action dated: August 30, 2006

CE12081JEM – Patino, et al.

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method of charging a battery, comprising the steps of:

receiving an input power supply signal that is used to charge a battery;
monitoring a voltage level of the input power supply signal to determine when the input power supply signal reaches first and second predetermined thresholds;
and

in response to said monitoring step, selectively controlling a charging switch that controls the flow of the input power supply signal to the battery, wherein said controlling step comprises activating the switch when the voltage level of the input power supply signal increases to reach ~~reaches~~ the first predetermined threshold and deactivating the switch when the voltage level of the input power supply signal decreases to reach ~~reaches~~ the second predetermined threshold.

2. (previously presented) The method according to claim 1, further comprising maintaining, through a capacitor, the voltage level of the input power supply signal to indicate that the electronic device is being charged.

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3. (original) The method according to claim 1, further comprising the step of synchronizing with said controlling of the charging switch the control of a second switch that regulates current flow to a circuit such that the second switch to the circuit is activated when the charging switch is activated and deactivated when the charging switch is deactivated.

4. (previously presented) The method according to claim 3, wherein the synchronizing step further comprises synchronizing with said controlling of the charging switch the control of the second switch that regulates current flow to a backlighting circuit such that the second switch to the backlighting circuit is activated when the charging switch is activated and deactivated when the charging switch is deactivated.

5. (original) The method according to claim 1, further comprising the step of performing said receiving, monitoring and controlling steps in a wireless charging system.

6. (original) The method according to claim 1, further comprising the step of rectifying the input power supply signal.

7. (original) The method according to claim 1, wherein the magnitude of the second predetermined threshold is higher than the magnitude of the first predetermined threshold.

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8. (currently amended) A method of charging a battery, comprising the steps of:

receiving an input power supply signal in an electronic device having a capacitor with a value high enough to maintain a voltage level of the input power supply signal to indicate that the electronic device is being charged to prevent disabling of a charging sequence for the battery;

monitoring the voltage level of the input power supply signal to determine when the voltage level of the input power supply signal reaches first and second predetermined thresholds;

selectively controlling a charging switch that controls the flow of the input power supply signal to the battery, wherein said controlling step comprises activating the switch when the voltage level of the input power supply signal increases to reach reaches the first predetermined threshold and deactivating the switch when the voltage level of the input power supply signal decreases to reach reaches the second predetermined threshold.

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9. (currently amended) A charging system for charging a battery, comprising:
an input for receiving an input power supply signal;
a charging switch for controlling the flow of said input power supply signal to said battery; and
a controller, wherein said controller is programmed to:
monitor a voltage level of said input power supply signal to determine when the voltage level of said input power supply signal reaches first and second predetermined thresholds; and
in response to the monitoring process, selectively control said charging switch by activating said charging switch when the voltage level of said input power supply signal increases to reach ~~reaches~~ said first predetermined threshold and by deactivating said switch when the voltage level of said input power supply signal decreases to reach ~~reaches~~ said second predetermined threshold.

10. (previously presented) The charging system according to claim 9, further comprising a capacitor that maintains the voltage level of the input power supply signal that said controller monitors to determine that said battery is being charged.

11. (original) The charging system according to claim 9, further comprising a circuit and a second switch that regulates current flow to said circuit, said second switch being under the control of said controller, wherein said controller is further programmed to synchronize with the controlling of said charging switch the control of said second switch such that said controller activates said second switch when said charging switch is activated and disables said second switch when said charging switch is deactivated.

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12. (original) The method according to claim 11, wherein said circuit is a backlighting circuit.
13. (original) The charging system according to claim 9, wherein said charging system is a wireless charging system.
14. (original) The charging system according to claim 9, further comprising a rectifier, wherein said rectifier rectifies said input power supply signal.
15. (original) The charging system according to claim 9, wherein the magnitude of said second predetermined threshold is higher than the magnitude of said first predetermined threshold.